REMARKS

Summary of the Office Action

In the Final Office Action, claims 1, 4-5, 7 and 10-11 stand rejected under 35 U.S.C. §103(a), as allegedly being unpatentable over U.S. Patent No. 6,086,443 to Shin et al. (hereinafter Shin). Claims 1-2, 4-8 and 10-12 stand rejected under 35 U.S.C. §103(a) as allegedly being unpatentable over U.S. Patent No. 6,104,467 to Nakahara et al. (hereinafter Nakahara) in view of Shin.

Summary of the Response to the Office Action

Applicant has amended claims 1 and 7 to differently describe the invention. Accordingly, claims 1-2, 4-8 and 10-12 remain pending in this application.

The Rejections under 35 U.S.C. §103(a)

Claims 1, 4-5, 7 and 10-11 stand rejected under 35 U.S.C. §103(a), as allegedly being unpatentable over Shin.

To the extent that the Examiner may consider this rejection to apply to the newly amended claims, the rejection is traversed as being based upon a reference that neither teaches nor suggests the novel features now recited in amended claims 1 and 7.

Independent claims 1 and 7, as newly amended, recite, *inter alia*, performing a second pressuring and heating process on the first and second substrates to form a second cell gap, wherein the second heating process is sufficient to soften the seal material, and the second pressurizing and heating process applies a greater pressure to the first and second substrates than

the first pressurizing and heating process. These claimed combinations are neither taught nor suggested in the relied upon references.

The Office Action relies upon Shin for an alleged teaching of a method of fabricating a liquid crystal display panel. The Office Action alleges that Shin teaches a first pressurizing and heat process (hot press step) with a pressure of 0.6 kg f/cm^2. The Office Action further alleges that Shin teaches a second pressurizing and heating process with pressures P1/P2/P3 of 0.1/0.5/0.3 kg f/cm^2, respectively. Thus, Shin teaches a second pressurizing process having lower pressures than the first pressuring process, which is the opposite of the presently claimed process. As indicated above, newly amended claims 1 and 7 recite, the second pressurizing and heating process applies a greater pressure to the first and second substrates than the first pressuring and heating process. However, as taught by Shin, the second pressurizing pressure is lesser than the first. Therefore, Shin fails to meet the features recited in newly amended claims 1 and 7 and in fact teaches away from the claimed invention.

Furthermore, Shin fails to teach or suggest a second heating process. Shin simply discloses the size of substrate, the temperature in the hot press step (160°C), and the time intervals T1/T2/T3/T4 (equal to 60/60/25/7 minutes) in experiment 1 to experiment 5 (column 6, lines 6-10). Accordingly, Shin fails to teach or suggest any second heating process as recited in claims 1 and 7.

The Office Action further alleges that Shin teaches performing a second pressurizing and heating process with UV radiation (T3 in Fig. 7, and column 5, lines 49-60), and that the second heating process is sufficient to soften the seal material (pages 5 and 6 of the Office Action). Applicant respectfully disagrees with this characterization. Although Shin discloses the use of

ultraviolet light, such light is used to harden the seal and not to soften the seal, as presently claimed. For example, Shin discloses that "a second sealant which can be hardened by the ultraviolet light is mixed with spacers" (column 5, lines 51-52, emphasis added). Hardening a sealant with ultraviolet light is not equivalent to a second heating process sufficient to soften the seal material, as claimed. Indeed such hardening of a seal material is opposite the claimed invention because it results in a hardening, not softening of the seal material.

As pointed out in MPEP §2131, "[t]o anticipate a claim, the reference must teach every element of the claim. Thus, "[a] claim is anticipated only if each and every element as set forth in the claim is found, either expressly or inherently described, in a single prior art reference. *Verdegaal Bros v. Union Oil Co. of California*, 2 USPQ 2d 1051, 1053 (Fed. Cir. 1987)." Similarly, MPEP §2143.03 instructs that "[t]o establish a *prima facie* obviousness of a claimed invention, all the claim limitations must be taught or suggested by the prior art. *In re Royka*, 409 F.2d 981, 180 USPQ 580 (CCPA 1974)."

Accordingly, for the aforementioned reasons, Applicant respectfully requests the withdrawal of the rejection of claims 1 and 7 under 35 U.S.C. §103(a) because Shin not only fails to teach or suggest the claimed invention, Shin teaches away from the claimed invention because it suggests a second pressurizing process having lower pressure than the first pressurizing process, which is opposite the claimed invention. Therefore, Applicant requests the allowance of claims 1 and 7. Additionally, Applicant respectfully asserts that claims 2, 4-6 and 8, 10-12 are allowable at least because of their dependence from allowable claims 1 and 7, respectively, and also for the reasons set forth above.

Claims 1-2, 4-8 and 10-12 stand rejected under 35 U.S.C. §103(a) as allegedly being unpatentable over Nakahara in view of Shin.

To the extent that the Examiner may consider this rejection to apply to the newly amended claims, the rejection is traversed as being based upon a combination of references that neither teach nor suggest the novel features now recited in amended claims 1 and 7.

Independent claims 1 and 7, as newly amended, recite, *inter alia*, performing a second pressurizing and heating process on the first and second substrates to form a second cell gap, wherein the second heating process is sufficient to soften the seal material, the second pressurizing and heating process applies a greater pressure to the first and second substrates than the first pressurizing and heating process. These claimed combinations are neither taught nor suggested in the relied upon references.

The Office Action relies upon Nakahara for an alleged teaching of a method for fabricating a liquid crystal display device. The Office Action recognizes that Nakahara fails to disclose the step of performing a second pressurizing and heating process on the first and second substrates, wherein the second heating process is sufficient to soften the seal material. Therefore, the Office Action relies upon Shin to cure such deficiency. However, as indicated above, although Shin discloses a first pressurizing and heating process, and a second pressurizing process, Shin fails to teach or suggest a second heating process, and furthermore wherein the second heating process is sufficient to soften the seal material. Although the Office Action alleges that Shin teaches performing a second pressurizing and heating process with UV radiation (T3 in Fig. 7, and column 5, lines 49-60), wherein the second heating process is sufficient to soften the seal material (pages 5 and 6 of the Office Action), Applicants respectfully

disagree with this characterization. As indicated above, Shin discloses the use of ultraviolet light to harden the seal and not soften the seal, as claimed. For example, Shin discloses that "the second sealant is hardened by the ultraviolet irradiation" (column 5, lines 59-60).

Accordingly, for the aforementioned reasons, Applicant respectfully requests the withdrawal of the rejection of independent claims 1 and 7 under 35 U.S.C. §103(a) because neither Nakahara nor Shin, whether taken singly or in combination, teach or suggest the claimed combinations recited in claims 1 and 7. Therefore, Applicant requests the allowance of claims 1 and 7. Additionally, Applicant respectfully asserts that claims 2, 4-6 and 8, 10-12 are allowable at least because of their dependence from allowable claims 1 and 7, respectively, and also for the reasons set forth above.

CONCLUSION

In view of the foregoing remarks, Applicant respectfully requests the entry of this Amendment to place the application in clear condition for allowance or, in the alternative, in better form for appeal. Applicant also requests the Examiner's reconsideration and reexamination of the application and the timely allowance of the pending claims.

Should the Examiner feel that there are any issues outstanding after consideration of this response, the Examiner is invited to contact Applicant's undersigned representative to expedite the prosecution.

EXCEPT for issue fees payable under 37 C.F.R. § 1.18, the Commissioner is hereby authorized by this paper to charge any additional fees during the entire pendency of this application including fees due under 37 C.F.R. §§ 1.16 and 1.17 which may be required, including any required extension of time fees, or credit any overpayment to Deposit Account No. 50-0310. This paragraph is intended to be a **CONSTRUCTIVE PETITION FOR EXTENSION OF TIME** in accordance with 37 C.F.R. § 1.136(a)(3).

Respectfully submitted,

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VERSION WITH MARKINGS TO SHOW CHANGES MADE

Claims 1 and 7 have been amended as follows:

1. (Twice Amended) A method of fabricating a liquid crystal display panel having first and second substrates, the method comprising the steps of:

forming a first and second orientation films on the first and second substrates, respectively;

forming a seal material at edges of the first substrate;

assembling the first and second substrates with each other;

performing a first pressurizing and heating process on the first and second substrates to form a first cell gap;

injecting a liquid crystal material into the first cell gap;

performing **a** second pressurizing and heating process on the first and second substrates to form a second cell gap, wherein the second heating process is sufficient to soften the seal material**, the second pressurizing and heating process applies a greater pressure to the first and second substrates than the first pressurizing and heating process,** and the second cell gap is narrower than the first cell gap; and

sealing the second cell gap.

7. (Amended) A method of fabricating a liquid crystal display panel having first and second substrates, the method comprising the steps of:

assembling the first substrate with the second substrate;

performing a first pressurizing and heating process on the assembled substrates to have a first cell gap;

injecting a liquid crystal material into the first cell gap;

performing **a** second pressurizing and heating process on the substrates to have a second cell gap, wherein the second heating process is sufficient to soften the seal material**, the second pressurizing and heating process applies a greater pressure to the first and second substrates than the first pressurizing and heating process,** and the second cell gap is narrower than the first cell gap;

sealing the second cell gap; and

cutting the sealed panel into a unit cell.